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Physical education programs for the physically  
normal boy in junior high school.





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PHYSICAL EDUCATION PROGRAMS  
FOR THE PHYSICALLY NORMAL BOY  
IN JUNIOR HIGH SCHOOL

- A thesis Presented By -

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## Statement of Problem

This thesis concerns the field of physical education for boys in the Junior High School. Its purpose is not to create a program, but to show how to make the present program better so that it will, in the last analysis, serve as a definite guide and aid in curriculum construction.

The trend of education is being directed towards the examination of the educational content and value of our programs; therefore, the programs and procedures must conform to educational theory and practice. In as much as programs are being tested by educational standards, they must have aims, objectives, and outcomes in order to be classed as a part of the educational process.

In promoting the development of an improved program every school administrator is confronted with the need of evaluating the program in his own school in the light of acceptable standards or criteria. With this idea in mind, an attempt will be made in this thesis to show how existing physical education programs can be developed so that they will measure more objectively those elements which, according to our present educational objectives, go to make up a worth while program.

Statement of Purpose

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### Need for this Study

The need for this study arises from the rapid progress made in physical education in the Junior High School. There are few, if any, valid means for evaluating physical education programs. Those responsible for judging the worth of programs have been forced to depend chiefly upon subjective judgments of a rather general nature.

### Limitations of the Study

The findings of this survey apply only to a restricted area. Representative schools in eastern Massachusetts have been under direct observation, and the programs actually being carried out in the area studied have been examined, criteria have been formulated, and recommendations offered.

### Sources of Material

The material studied was limited to Junior High School programs in and near Greater Boston. Personal visits were made, and the persons responsible for the programs interviewed. Questionnaires were tried, but this method proved unsatisfactory.





### The Junior High School

The Junior High School, during the last decade, has been giving to the early adolescent youth a broader education than was possible under the old eight-four plan. The Junior High School may be defined as a re-organization of grades seven, eight and nine where "there should be the gradual introduction of departmental instruction, some choice of subjects under guidance, promotion by subjects, prevocational courses, and a social organization that calls forth initiative and develops the sense of personal responsibility for the welfare of the group."<sup>1</sup> The emphasis is placed and an attempt is made to help the pupils explore their own aptitudes and to make at least a provisional choice of the kind of work to which he will devote himself.

In recognizing the necessity of a distinct educational unit which offers prevocational guidance, exploration, and greater activity on the part of the pupils, the Junior High School has played a vital part. It is a new type of school for the adolescent, beginning at an age when he is eager to explore his personal interests and abilities.

The curriculum of the Junior High School contributes materially toward achieving domestic, economic, and civic efficiency, social adjustment, worthy use of leisure, and adequate physical and emotional health.

1. "Cardinal Principles of Secondary Education", Bureau of Education, Department of the Interior, Bulletin No. 35, 1918, p.19.





### Functions of a Junior High School

The primary functions of a Junior High School are as follows:

- (1) gradual transition
- (2) exploration and guidance
- (3) recognition of individual differences
- (4) democratization of the school system

These functions may be briefly described in the following terms.

The function of gradual transition is of vital importance; it helps to provide an easier and a more natural adjustment between elementary and secondary education. The Junior High School supplies an intermediate form of organization between the elementary and the secondary school procedure.

Pupils are enabled to become accustomed gradually to secondary school procedures. With the seventh, eighth and ninth years as a transitional period, the Junior High School bridges the most important mortality gap or break in the public school system.

The function of exploration and guidance is made up of two phases which re-act upon each other and creates a better performance. Koos describes exploration as "being concerned with try-out of subjects and subject groups, and experimental contacts in school or elsewhere with occupational life" and guidance as "being concerned with other phases, such as assistance in courses or curriculum selection, also in the choice of present and future lines of activity, such as occupational, recreational, social, etc." <sup>1</sup>

1. Koos, L. V., The Junior High School, pp.54-55.





Guidance offers an efficient means for combating the difficulties which the complexity of our modern civilization is making in society. The school is trying to fit the individual into the life of a community as a social, moral, and economic asset.

To deal with individual differences is one of the chief motives of the Junior High School. It tries to meet the varying mental capacities and economic needs of the pupils, and it offers opportunities for over-age pupils by providing differentiation and classification. The curriculum of the Junior High School, therefore, is being arranged to meet individual needs and to prepare children for the business of living.

The function of democratization in Junior High Schools is carried on by engaging in extra-curricula activities. The benefits received fulfill the purpose of democracy which is to organize society so that each member may develop his personality primarily through activities designed for the well being of his fellow members and of society as a whole. Extra-curricula activities provide a moral and mental outlet as a means of expressing moods and feelings through action.

The activities so directed create citizenship ideals, build character forming elements, stimulate emotional and mental abilities which determine behavior. They also develop leadership, followership, and co-operative, qualities which are essential to good citizenship in a democracy.





## Junior High School Functions Applied to Physical Education

The primary functions of the Junior High School may be closely related to physical activities in the following ways:

Gradual transition. A program of physical education should follow closely the changing needs and abilities of pupils from primary school through high school, capitalize the force of interest and utilize for teaching purposes the very activities in which pupils desire to participate. It should extend from the simple game of tag which utilizes the desire for running, to the highly developed and organized games which make use of the desire for team work, speed, and skilled responses.

Exploration. The Junior High School should offer an exploratory program which introduces pupils to the simple types of formalized games, sports, and gymnastics, including those which enable the adult to keep physically fit and provide enjoyment of leisure time.

Guidance. In the relation of physical education to guidance "evidence seems to show that the teacher of physical education knows the boy as a whole infinitely better than the classroom teacher" due to the following reasons: <sup>1</sup>

Contacts of the physical education teacher are in those situations where the child is a 'free agent.' In play, inhibitions are largely absent. In games the broad range of emotions and social impulses that are aroused give numerous conduct activities in which behavior patterns are objectively observed in real situations.

1. Crowell, Charles C. Physical Education and Its Relationships in the High School. The Journal of Health and Physical Education, Vol. IV, No.3, Mar. 1933, p.34.





The physical education teacher considers the child as a psychological unit, and not merely as a cerebral cortex. The social contact between the teacher and pupil is a close one. Therefore, because of this personal relationship with the students they can give the type of personal guidance which no other teacher has an opportunity to give.

Individual differences. In the past, practically no consideration for individual differences has been directed to physical education. There has been a gross neglect of this necessity. However, today there are a few schools that are classifying pupils and adapting activities to the individual needs of the Junior High School pupil.

To discover and to serve the needs of individual pupils, physical education directors are beginning to secure results by using various tests and measurements.

Real progress has been made in grading physical education programs like other subjects are graded. The graded abilities of the pupil. A few leaders in the field of physical education who have helped much to grade programs and care for individual differences are Brace, Cozens, McCurdy, McCloy and Rogers.

Progress in building programs adapted to individual needs has rapidly progressed to the point where segregation of pupils for individual attention has been made for physical deficiencies. Corrective programs are being scheduled for pupils needing individual attention. Physical education is being made more effective by grouping for instruction for pupils' needs, thus caring for individual differences.

Democratization. A comprehensive plan of physical education is





carried out by a continuous program of health instruction and of physical activities from the first grade through the high school. The activities have a life-time value, with integration of physical education a genuine part of the general program of education, and with proper distribution of emphasis upon athletics in comparison with other physical activities.

All pupils should receive their respective share of attention by competent teachers. The development of a wholesome attitude toward play in all its varied forms should be encouraged throughout the entire school career. Materials of instruction and activities in the Junior High School should, whenever possible, contribute a link between physical education and the general objectives of a secondary education. Individual differences, needs, and handicaps are being provided for in modern programs.

In physical activities there is an opportunity to influence certain attitudes toward play which are much needed in life today. By fostering the spirit of play there comes satisfaction to those who know how to play.. This aims directly toward an educational goal --- that of happiness and satisfaction in life. Games and sports offer opportunity for the development of moral and social values now demanded of education. Team play and competitive games give the individual actual experiences in co-operation within a group and also fair competition. These furnish a real experience of life, by putting the pupil in contact with situations where he must adapt his habits to meet new situations and where the group comes ahead of individual gain. It should aid in the development of a strong spirit of democracy and love of law and order. Under the proper teaching of organized





athletic sports, the child will learn quickly to respect the rights of others, to recognize merit as demonstrated, to respect opinions of others, and above all to respect the rules of the game.





### Purpose of Physical Education in the Junior High School

According to Symonds, "there is no department of secondary education in which there is more confusion as to aims than in physical education. Their aims which are stated try to cover too much and are vague and indefinite." <sup>1</sup>

Physical instruction for boys, in those Junior High Schools where modern programs are in operation, is a method of education through physical activity. The principles, in a broad sense, are identical with the objectives of general education - preparation for life. The purpose is differentiated from the other phases of education only in relation to the selected materials by which the aims are to be accomplished.

Physical education has been defined as "the contribution made to the complete education of the child by offering an opportunity for psychomotor, or big muscle activity, during school, with physical growth and development as one resultant." <sup>2</sup> The activities should be based on the interests and developmental needs of the boys. They should have a meaning and be satisfying.

The objectives of physical education conform to those of all education according to Rogers, who states, "it differs only in emphasis as conditioned by the activities of the physical education program." <sup>3</sup> These objectives should contribute directly to all the general aims of education as stated by the commission of the National Education Association on the Reorganization of Secondary Education which are as follows: health, command of

1. Symonds, P.M., *Measurement in Secondary Education*, p.184.

2. Wood & Cassidy, *The New Physical Education*, p.86.

3. Rogers, F.R., *Fundamental Administrative Measures in Physical Education*, p.10.





fundamental processes, worthy home membership, vocation, civic education, worthy use of leisure time, and ethical character. Physical education is a part of the school curriculum and as such cannot be separated from the aims of general education. Today, physical education is well established and well equipped division of education in any progressive school system in America.<sup>1</sup>

A modern program strives to meet the physiological needs of the pupils. It is important that the pupils have an opportunity for participation in big muscle activities to aid them in developing organic vigor, correct muscular growth, nervous stability, emotional health, a healthy personality, desirable health attitudes, and good posture. The activities are selected, organized and administered in a manner which is hygienic from a mental, physical, and emotional point of view.

One of the functions of a Junior High School is to provide the activities which are natural, spontaneous, and joyous in a suitable environment and with adequate supervision. The activities should carry over and form an important part of the boy's out-of-door play. It also must help in the better preparation for obtaining the most pleasure, satisfactions, and benefit from the use of leisure time. This especially true during the Junior High School period because habits of enjoyment are like any other habits --- they are easiest acquired in childhood. The children of today must develop worthwhile hobbies and avocations for tomorrow.

Accepting the principle that physical education is a part of general education, administrators have become actively concerned with de-

1. LaPorte, Wm.R., Physical Education Contributes to the Seven Cardinal Principles. Journal of Health and Physical Education, Vol.IV, No.3, March, 1933, p.10.





fining their aims and objectives. They realize the need of organizing them in terms of a valid set of objectives framed in terms of an accepted philosophy in modern systems of education.





### Criteria for Proper Programs

In promoting the development of an improved programs of physical education every school superintendent, principal and teacher is confronted with the need of evaluating his present program in his own school in the light of acceptable standards or criteria. In order to evaluate such programs it becomes necessary to establish criteria of the best educational procedures. There must be some standard which will serve as a measuring stick to determine the degree to which the activities provided the greatest opportunity to develop educational objectives according to those standards which have been established as being the purpose of the program.

Probably the best way to ascertain the value of a program is to measure the progress made under the influence of that program. Raising the standard of health and character in any school depends for the most part more on the personality and ability of the instructor rather than on the facilities and course of study. To measure this progress seems almost impossible with the hereditary and environmental conditions which affect the children. One can never be certain how much of a pupil's progress in physical education is due to outside factors. To measure the pupil's needs it would be necessary to classify pupils into groups in accordance with such factors as age, height, and weight so as to reduce the influence of handicaps. It would also be necessary to find the improvement shown by pupils through the application of valid tests designed to test for knowledge, attitudes, character, organic vitality, neuro-muscular skills, etc.





Not having adequate tools to measure pupil's progress in terms of abilities, the next best procedure is a relation between "set-up" and progress of students. Facilities and programs, however, are the means that teachers must use in order to influence their pupils. "It has been demonstrated that a scientific pre-arranged plan of work enthusiastically and faithfully carried out will greatly enrich the value of the work of any instructor, no matter how capable, attractive, and ingenious that instructor may be." <sup>1</sup>

It has been found that when a supervisor and others are asked to criticize and evaluate a program, in the absence of objective means they are apt to give their opinions in subjective terms of personal experiences and attitudes. <sup>2</sup>

An accurate evaluation will be useful in measuring those elements which according to the present educational objectives go to make up a worthwhile program.

There are certain criteria which are in harmony with modern theory and practice in the general field of education which can be used to judge the value of physical education programs. Williams states there are four criteria for judging the value of physical education activities. These are based upon the nature of man, his biological needs in relation to national ideals, inherent traits, and social purposes. They are as follows:

(1) The activities must provide physiological results scientifically determined and indicative of wholesome functional activity of organic systems, and must be expressive of the need of the growing organism.

1. A Course of Study For Junior and Senior High School Boys, Physical Education, Springfield, Mass., p.7.
2. Division of Health and Physical Education. Bulletin No.E-2. California State Department of Education, p.iv.





(2) The activities must have meaning and significance for the individual and should provide a "carry-over" interest.

(3) The activities must provide opportunity for the individual to exercise the desirable instinct mechanisms by which socially useful traits may be developed.

(4) The activities must offer opportunity for the individual, under wise leadership, to meet educative situations as one of a social group.

A set of criteria suggested by Clark Hetherington follows: <sup>2</sup>

(1) Children's needs, interests and problems.

(2) Adult social needs, the latter being considered from the stand point of the children's future adult needs or the needs of society in their future behavior.

1. Williams, J.F., Principles of Physical Education, pp.422-423.
2. Hetherington, Clark W., School Program in Physical Education, World Book Company, New York, 1922, pp.53-68.





Composite List of Criteria to Evaluate a Program

The criteria previously presented are too broadly stated to be of the greatest value in judging the actual conditions found in the schools studied. Therefore, a few basic criteria are here presented as a result of visiting supervisors and teachers of physical education. These were obtained from their comments, suggestions and criticisms of what they considered the most essential factors in the administration of a worthwhile program.

The following list of criteria for evaluating the efficiency of a program would include the following:

1. Physical education classes should be scheduled on the basis of physical examinations and not on the basis of vacant periods after all other assignments have been made.
2. Adequate special facilities should be provided to secure the greatest benefit from the physical education program.
3. Adequate equipment must be provided to secure the greatest benefit from the physical education program.
4. Definite objectives seeking specific outcomes should be stated.
5. There should be not less than two activity periods per week, each of at least sixty minutes duration.
6. Classes in physical education should not average over forty pupils per instructor.
7. Programs should be adapted to the needs of the physical differences of pupils.
8. No strenuous activity should be attempted unless followed by a shower.





9. Records of outside physical activities should be kept for all pupils receiving physical education instruction.
10. Programs should be progressive and graded to be of greatest value.





Date Concerning Physical Education Programs

The data concerning the programs was secured by personal visits to Junior High Schools in the following school systems:

|            |           |            |           |
|------------|-----------|------------|-----------|
| Arlington  | Lexington | Reading    | Watertown |
| Belmont    | Marlboro  | Saxonville | Wellesley |
| Framingham | Maynard   | Stoneham   |           |
| Leminstor  | Melrose   | Waltham    |           |

Data was secured on the following material facts:

- ✓ 1. Number of boys in school receiving physical instruction?
2. Length of periods?
3. Number of periods per week?
4. Size of largest class?
- Size of average class?
- Size of smallest class?
5. To what extent is program modified to meet individual differences?
6. How often is a medical examination given and by whom?
7. How often is a physical examination given and by whom?
8. Records kept?
9. To what extent is data used for following up purposes?
10. Method of administering corrective work?
11. What tests and measurements given?
12. Number of boys participating in intramural program?
13. List of activities taught for leisure time education?
14. Program of activities?
15. Are classes held out-of-doors when possible?





## 16. List of equipment and facilities?

Summary of Investigation

| Project | Number of<br>boys in<br>school | Length of<br>periods | Frequency<br>per<br>week | Size of Diagrams<br>Largest-Middle-Smallest |    |    |
|---------|--------------------------------|----------------------|--------------------------|---------------------------------------------|----|----|
| A       | 231                            | 35-45                | 2                        | 60                                          | 18 | 16 |
| B       | 222                            | 40                   | 2                        | 55                                          | 31 | 40 |
| C       | 88                             | 75                   | 1                        | 55                                          | 30 | 27 |
| D       | 140                            | 40                   | 2                        | 40                                          | 25 | 20 |
| E       | 230                            | 35                   | 2-3-4<br>-2              | 72                                          | 39 | 28 |
| F       | 235                            | 45                   | 2                        | 61                                          | 30 | 25 |
| G       | 220                            | 50                   | 2-3-3<br>-1              | 70                                          | 38 | 25 |
| H       | 270                            | 35                   | 5                        | 65                                          | 35 | 25 |
| I       | 190                            | 35                   | 5                        | 60                                          | 33 | 23 |
| J       | 140                            | 35                   | 2                        | 55                                          | 30 | 25 |
| K       | 175                            | 40                   | 2                        | 45                                          | 25 | 21 |
| L       | 200                            | 60                   | 2                        | 55                                          | 35 | 25 |
| M       | 200                            | 45                   | 2                        | 45                                          | 32 | 25 |
| N       | 225                            | 40                   | 2                        | 45                                          | 25 | 20 |
| O       | 230                            | 75                   | 2                        | 55                                          | 35 | 25 |





Summary of Investigation

| School | Number of<br>boys in<br>school | Length of<br>periods | Periods<br>per<br>week | Size of classes          |    |    |
|--------|--------------------------------|----------------------|------------------------|--------------------------|----|----|
|        |                                |                      |                        | Largest-Smallest-Average |    |    |
| A      | 251                            | 30-60                | 2                      | 40                       | 14 | 16 |
| B      | 553                            | 40                   | 2                      | 57                       | 31 | 44 |
| C      | 85                             | 75                   | 1                      | 50                       | 25 | 32 |
| D      | 140                            | 40                   | 3                      | 40                       | 25 | 30 |
| E      | 250                            | 55                   | 7-8-4)<br>9 -2)        | 52                       | 39 | 44 |
| F      | 256                            | 45                   | 2                      | 51                       | 30 | 36 |
| G      | 280                            | 60                   | 7-8-2)<br>9 -1)        | 35                       | 12 | 25 |
| H      | 455                            | 45                   | 2                      | 53                       | 38 | 42 |
| I      | 195                            | 45                   | 2                      | 45                       | 13 | 35 |
| J      | 248                            | 45                   | 2                      | 62                       | 23 | 48 |
| K      | 155                            | 40                   | 2                      | 42                       | 29 | 31 |
| L      | 260                            | 60                   | 2                      | 68                       | 35 | 45 |
| M      | 300                            | 45                   | 2                      | 55                       | 30 | 35 |
| N      | 82                             | 45                   | 2                      | 40                       | 38 | 39 |
| O      | 230                            | 75                   | 1                      | 55                       | 35 | 40 |





| School | To what extent<br>is program modi-<br>fied to meet<br>individual dif-<br>ferences | How often is a<br>medical examina-<br>tion given                 | How often is a<br>physical examina-<br>tion given      | Records<br>kept           |
|--------|-----------------------------------------------------------------------------------|------------------------------------------------------------------|--------------------------------------------------------|---------------------------|
| A      | none<br>assigned by year                                                          | once a year                                                      | not given                                              | yes<br>medical            |
| B      | three corrective<br>classes                                                       | once a year                                                      | four times a<br>year                                   | yes                       |
| C      | Serious cases<br>given special<br>work by correc-<br>tive teacher                 | once a year                                                      | twice a year                                           | yes                       |
| D      | only those ex-<br>cused by physi-<br>cian                                         | once a year                                                      | once a year                                            | yes<br>medical            |
| E      | work in correc-<br>tive clinic                                                    | once a year                                                      | not given                                              | yes<br>medical            |
| F      | Corrective work                                                                   | once a year                                                      | twice a year                                           | yes                       |
| G      | do special cor-<br>rective work by<br>themselves                                  | once a year                                                      | once a year<br>more often for<br>defective pup-<br>ils | yes                       |
| H      | none-classes meet<br>irregularly                                                  | once a year                                                      | once a year                                            | yes                       |
| I      | none<br>assigned by year                                                          | pupils only<br>on request of<br>physical direc-<br>tor           | only a t re-<br>quest of par-<br>ent                   | no                        |
| J      | none                                                                              | once a year                                                      | three times a<br>year                                  | yes                       |
| K      | none - boys are<br>not separated<br>from girls                                    | on request of<br>homeroom tea-<br>cher or physi-<br>cal director | every month                                            | only height<br>and weight |
| L      | none                                                                              | once a year                                                      | twice a year                                           | yes                       |











| School | Extent data used<br>for follow up<br>purposes | Method of adminis-<br>tering corrective<br>work | Tests and measure-<br>ments given |
|--------|-----------------------------------------------|-------------------------------------------------|-----------------------------------|
| A      | malnutrition<br>work                          | no program attempt-<br>ed                       | none                              |
| B      | correction of<br>physical defects             | three corrective<br>classes twice a<br>week     | achievement                       |
| C      | posture, weight<br>and feet                   | clinic for serious<br>defects                   | none                              |
| D      | none                                          | posture stressed<br>and corrective<br>drills    | physical capacity                 |
| E      | corrective work                               | corrective clinic<br>(special teacher)          | achievement                       |
| F      | corrective work                               | use photograph<br>individual in-<br>struction   | photography for<br>posture        |
| G      | corrective work                               | corrective work<br>during regular<br>period     | muscular measurements             |
| H      | none                                          | not attempted                                   | achievement on skills             |
| I      | none                                          | not attempted                                   | none                              |
| J      | none                                          | special group<br>work each week                 | none                              |
| K      | malnutrition                                  | not attempted                                   | none                              |
| L      | none                                          | special group<br>once a week                    | none                              |
| M      | malnutrition                                  | during regular<br>class work                    | none                              |
| N      | corrective work                               | school nurse                                    | achievement                       |
| O      | corrective work                               | individual atten-<br>tion in a clinic           | physical efficiency               |





| School | Number of Boys Intramural work |        |        | Activities for Leisure Time                   |                            |
|--------|--------------------------------|--------|--------|-----------------------------------------------|----------------------------|
|        | Fall                           | Winter | Spring |                                               |                            |
| A      | interscholastic competition    |        |        | tennis<br>volley ball                         | soccer                     |
| B      | interscholastic competition    |        |        | dancing<br>tennis<br>baseball                 | track<br>soccer            |
| C      | 60                             | 65     | 50     | volley ball<br>basketball                     | soccer<br>baseball         |
| D      | 135                            | 100    | 125    | soccer<br>basketball                          | baseball<br>track          |
| E      | 200                            | 220    | 100    | dancing<br>track<br>games of low organization | baseball<br>touch football |
| F      | 88                             | 30     | 200    | Handball<br>soccer                            | volley ball<br>track       |
| G      | interscholastic                |        |        | speed ball<br>quoits                          | volley ball<br>box hockey  |
| H      |                                | 80     |        | seasonable sports                             |                            |
| I      | 20                             | 40     | 30     | volley ball<br>track                          | baseball                   |
| J      | 170                            | 216    | 180    | speed ball<br>baseball                        | volley ball                |
| K      |                                | 50     | 30     | volley ball<br>basketball                     | baseball                   |
| L      | 160                            | 200    | 110    | speed ball<br>baseball                        | volley ball                |
| M      | 80                             | 90     | 60     | seasonable games                              |                            |
| N      |                                | 40     |        | horse shoe pitching<br>soccer                 | baseball                   |
| O      | 150                            | 100    | 125    | tag football<br>soccer                        | volley ball<br>basketball  |





| School | Program of Activities                                            |                                                                                                                                                                      |                                  | Classes held out-of-doors |
|--------|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------|
|        | Fall                                                             | Winter                                                                                                                                                               | Spring                           |                           |
| A      | soccer<br>football                                               | apparatus tum-<br>bling, marching<br>free exercise<br>basketball<br>volley ball<br>games of low<br>organization                                                      | baseball<br>track<br>tennis      | yes                       |
| B      | soccer<br>football                                               | apparatus<br>boxing<br>corrective<br>work<br>marching<br>pyramid build-<br>ing<br>stunts, free<br>exercise,<br>games of low<br>organization<br>tumbling<br>wrestling | baseball<br>track<br>tennis      | yes                       |
| C      | soccer<br>football<br>volley<br>ball<br>play-<br>ground<br>games | health instruc-<br>tion, volley<br>ball, basket-<br>ball, rope<br>climbing<br>physical effi-<br>ciency tests<br>games of vari-<br>ous types                          | track<br>volley ball<br>baseball | yes                       |
| D      | soccer<br>touch<br>football                                      | games of low<br>organization<br>apparatus                                                                                                                            | track<br>baseball                | yes                       |
| E      | soccer<br>touch<br>football<br>victory<br>ball                   | apparatus<br>boxing, dancing<br>pyramid build-<br>ing, stunts<br>tumbling<br>wrestling<br>games of low<br>organization<br>free exercise<br>marching                  | baseball<br>track<br>swat ball   | yes                       |





| School | Program of Activities                                                          |                                                                                                                                         |                                                                                | Classes held out-of-doors  |
|--------|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|----------------------------|
|        | Fall                                                                           | Winter                                                                                                                                  | Spring                                                                         |                            |
| F      | soccer, tag<br>football                                                        | informal game<br>program, posture work<br>apparatus<br>tumbling<br>stunts, indoor<br>track, basketball                                  | track                                                                          | yes                        |
| G      | touch football<br>football                                                     | apparatus<br>corrective<br>work, free<br>exercise, games<br>of low organization,<br>marching<br>stunts, volley<br>ball, tumbling        | track<br>tumbling                                                              | yes                        |
| H      | soccer<br>touch football                                                       | apparatus, marching,<br>stunts<br>free exercise<br>tumbling<br>wrestling                                                                | baseball<br>track                                                              | no                         |
| I      | football<br>relays<br>games of<br>low organization<br>basketball               | basketball<br>volley ball<br>formal exercise<br>on apparatus<br>tumbling                                                                | indoor baseball,<br>indoor<br>track                                            | impossible no<br>play yard |
| J      | football<br>fundamentals                                                       | tumbling, basketball skills<br>free exercise<br>games of low<br>organization<br>wand and dumbbell<br>drills<br>marching<br>calisthenics | baseball<br>track                                                              | yes                        |
| K      | apparatus<br>tumbling<br>free exercise<br>marching<br>basketball<br>speed ball | apparatus<br>tumbling<br>free exercise<br>marching<br>basketball<br>speed ball                                                          | apparatus<br>tumbling<br>free exercise<br>marching<br>basketball<br>speed ball | no                         |





| School | Program of Activities                                                            |                                                                                                                                      |                                                                   | Classes held out-of-doors |
|--------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------|
|        | Fall                                                                             | Winter                                                                                                                               | Spring                                                            |                           |
| L      | football<br>fundamentals                                                         | tumbling<br>marching<br>wand drills<br>free exercise<br>formal calis-<br>thenics<br>marching                                         | track<br>games of low<br>organization                             | no                        |
| M      | soccer<br>football<br>fundamentals<br>touch foot-<br>ball, play-<br>ground games | wrestling<br>apparatus<br>marching<br>games of low<br>organization<br>basketball<br>fundamentals<br>of indoor base-<br>ball          | track<br>baseball<br>playground<br>games                          | yes                       |
| N      | tag football<br>soccer<br>league                                                 | basketball<br>skills, relays<br>games, basket-<br>ball league<br>calisthenics<br>apparatus<br>tumbling<br>stunts                     | achievement<br>tests and<br>class league<br>in soft foot-<br>ball | yes                       |
| O      | soccer<br>football<br>fundamentals<br>volley ball<br>playground<br>games         | health instruc-<br>tion, basketball<br>fundamentals<br>rope climbing<br>physical effi-<br>ciency test<br>games of vari-<br>ous types | track<br>field funda-<br>mentals<br>baseball<br>fundamentals      | yes                       |





| School | List of equipment                                                                                    | Indoor facilities                                                                                                                                                                           | Outdoor facilities                                                                                |
|--------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| A      | piano, ropes, stall bars, mats, rings, vaulting box, high bar                                        | exercise floor<br>width 65 feet<br>length 70 feet<br>height 27 feet<br>lockers have adequacy, safety, sanitation and convenience<br>showers consist of nine water heads                     | large playground<br>unbroken by buildings                                                         |
| B      | 16 mats, horse, spring board, beat board, swedish box                                                | exercis floor 30 feet by 100 feet<br>height 12 feet<br>no lockers<br>no showers                                                                                                             | large playfield, four tennis courts, football, soccer baseball                                    |
| C      | parallel bar, mats                                                                                   | exercise floor<br>width 30 feet<br>length 40 feet<br>height 12 feet<br>no showers<br>adequate lockers                                                                                       | large playground<br>unbroken by buildings<br>containing two acres                                 |
| D      | three mats<br>parallel bar<br>vaulting box                                                           | exercise floor<br>50 feet square<br>no showers<br>no lockers                                                                                                                                | large playground<br>unbroken by buildings<br>containing two acres<br>fenced in                    |
| E      | piano, mats<br>horizontal bar<br>horse, rings<br>parallel bar<br>climbing ropes<br>ladder, stall bar | exercise floor<br>width 60 feet<br>length 80 feet<br>height 20 feet<br>rest room<br>corrective room<br>adequate lockers<br>which had sanitation and convenience, adequate shower facilities | playfield consisting of two acres unbroken by buildings and fenced in                             |
| F      | mats, parallel bar                                                                                   | exercise floor 40 feet by 40 feet<br>used in conjunction with girls, width 40 feet length 80 feet<br>height 24 feet<br>showers inadequate<br>lockers inadequate                             | large playground but not attached to school grounds, approximately 300 yards from school building |





| School | List of equipment                          | Indoor facilities                                                                                                                                                                                                                                                                                                                      | Outdoor facilities                                         |
|--------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| G      | mats, rings, climbing ropes, parallel bars | exercise floor<br>width 30 feet<br>length 65 feet<br>height 14 feet<br>lockers have no convenience but have sanitation and safety, shower room not adequate<br>three water heads and small in size<br>internal arrangements very poor at times necessary for boys to use lunch room to exercise when period conflicts with girls class | play space of one and one-half acres unbroken by buildings |
| H      | piano, mats<br>parallel bar<br>horse       | exercise floor<br>width 40 feet<br>length 70 feet<br>height 30 feet<br>lockers have convenience safety and adequacy but no sanitation<br>shower room has 10 water heads but seldom used as drainage is poor                                                                                                                            | large unbroken playground containing four acres            |
| I      | mats, rings, climbing ropes<br>horse       | exercise floor<br>width 35 feet<br>length 65 feet<br>height 18 feet<br>lockers do not have convenience adequacy, safety or sanitation                                                                                                                                                                                                  | no play yard                                               |
| J      | mats, wands<br>vaulting box<br>dumb-bells  | exercise floor<br>width 45 feet<br>length 120 feet<br>height 22 feet<br>lockers had convenience, safety sanitation and adequacy, showers were adequate                                                                                                                                                                                 | fenced in playground unbroken by buildings                 |





| School | List of equipment                                                                           | Indoor facilities                                                                                                                           | Outdoor facilities                                                                                                                                                               |
|--------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| K      | long horse, five<br>mats, parallel bar                                                      | exercise floor<br>width 40 feet<br>length 50 feet<br>height 12 feet<br>no showers, lockers<br>inadequate and not<br>convenient              | playground badly<br>broken by build-<br>ings                                                                                                                                     |
| L      | mats, wands,<br>dumb-bells<br>basketballs<br>volley balls<br>indoor baseballs<br>horse      | exercise floor<br>width 50 feet<br>length 75 feet<br>height 27 feet<br>lockers have ade-<br>quacy, safety,<br>sanitation and<br>convenience | large playground<br>unbroken by<br>buildings but<br>owing to closeness<br>of another school<br>activities are<br>curtailed because<br>of interfering<br>with the other<br>school |
| M.     | mats, horse<br>climbing ropes<br>rings                                                      | exercise floor<br>width 50 feet<br>length 70 feet<br>height 27 feet<br>showers adequate<br>lockers inadequate<br>in number                  | large fenced in<br>playground                                                                                                                                                    |
| N      | mats, high bar<br>parallel bar<br>spring board<br>climbing ropes<br>rings,<br>chest weights | exercise floor<br>width 45 feet<br>length 60 feet<br>height 28 feet<br>showers adequate<br>lockers adequate                                 | small fenced in<br>playground un-<br>suited for play<br>activities                                                                                                               |
| O      | parallel bar<br>mats<br>climbing ropes                                                      | exercise floor<br>width 45 feet<br>length 70 feet<br>height 25 feet<br>adequate lockers<br>adequate showers                                 | large playground                                                                                                                                                                 |





### Summary of the Investigation

The inquiry regarding the present status of physical education in Junior High Schools was done by personal visits and interviewing persons responsible for physical education programs. The result of the investigation presents evidence that there is need of more and of better physical education work along all lines. Physical education has not kept pace with the general educational scheme. There must be a closer integration of physical education programs and method with current practice in education. From the data of this study the need for better programs will be evidenced.

### Application of Criteria to the Programs Studied

The basic criteria were obtained from comments, suggestions and criticisms from supervisors and teachers of physical education of what they considered the most essential factors in the administration of a worthwhile program. These factors will be discussed in detail in the summaries and criticisms in the following pages.

Its purpose is not to create a program, but to show how to make the present program better so that it will, in the last analysis, serve as a definite guide and aid in curriculum construction.





### Number of Boys in School

From the total number of boys enrolled in school and the number of periods per week, it was ascertained that there is a waste of mis-grouping, over-grouping and undergrouping. It was found that the grouping of classes could be now evenly divided. A method to avoid existing conditions would be to write physical education on the students' program first.<sup>1</sup>

Administrators arranged all other classes first and then fitted physical education into the schedule as best they could, with little thought of the effect on the physical education program and on the pupils, they did secure the maximum amount of efficiency from their curriculum. However, there has been some recognition for physical education as an integral subject in the curriculum. In most cases it is the last subject in the curriculum to be scheduled, but there is a trend to schedule physical education program first. This has been convenient both in curriculum making and in program scheduling.

1. Williams, J.F. Dambach, J. & Schwendener, N. Methods in Physical Education, p.112.





### Length of Periods.

The length of period most often found was one of forty-five minutes duration. The longest was seventy-five minutes and the shortest thirty minutes.

The most useful period suggested by the instructors was a period which consisted of sixty minutes. They based their claims on the following considerations: it allows ample time for changing into gymnasium costume, a shower bath, and dressing at the end. This allows approximately forty minutes for class instruction and class activity, and was deemed sufficient to accomplish the aims of the lesson program planned.

In periods of less than forty minutes schools are not attempt-  
int to give their students a shower because of the small amount of time  
actually left for class activity.

This practice of not giving pupils a shower after a period of strenuous activity is to be condemned. It is not hygienic and leaves the pupils in a condition of unrest the remainder of the school session.

No strenuous activity should be attempted unless followed by a  
shower.<sup>1</sup>

1. School Health Program, White House Conference on Child Health and Protection, Century Company, 1932, p.120





### Number of Instructional Periods

The number of instructional periods per week for physical education varied from one to four. The majority of programs gave two periods. The greatest number of periods, which was four, was found in but one program. Three periods were found in four programs. One period occurred in three programs.

The number of periods also varied for the grade in school. Grades seven and eight received the same number, which was greater than grade nine, where such distinctions were made.

"Most pupils will need from four to five periods of large-muscle activity during school hours weekly to maintain their physical fitness or to correct deficiencies."<sup>1</sup>

The report of the White House Conference on Child Health and Protection advocate a program for Junior High Schools of not less than one hour daily.<sup>2</sup>

To meet the needs of big muscle activity during school hours, as advocated by Rogers and the Report of the White House Conference on Child Health and Protection, gymnasium and playground facilities must be adequate to care for all the pupils. It is possible to maintain physical fitness and correct physical deficiencies for a school of about a thousand pupils with proper facilities and equipment.

1. Rogers, F.R., Fundamental Measures in Physical Education p.192
2. White House Conference on Child Health and Protection, The School Health Program, Century Company, New York, 1932 p.211





### Sizes of Classes Compared to Adequate Teacher Load

The sizes of classes for physical education, in the data secured from the programs, varied from those of twenty to thirty-five pupils --- which is considered adequate teacher load,<sup>1</sup> if it is to be educative --- to schools where one instructor is expected to handle groups of eighty or more. The over-sized classes seemed to ruin the possibilities of good teaching because the problem in a large class was not one of education but of management.

The small classes of ten to fifteen pupils made up a class in which the instructor is handicapped and unable to do a good job of teaching. The instructors themselves preferred classes of at least twenty-four pupils.

Undergrouping is not as frequent as overgrouping, yet is as great a mistake as overgrouping. An instructor cannot be expected to do a good job of teaching under such conditions.

Today the actual practice throughout the Eastern part of the country is to have between forty and sixty pupils in a class under one instructor. An instructor cannot secure maximum efficiency because the problem is more apt to be one of discipline than important teaching and learning of activities, functional motor skills, desirable attitudes and standards.

1. Williams, J. F., Dambach, J.I, and Schwendener, N., *Methods in Physical Education*, p.113.





Boys and girls should each have large separate gymnasiums and play areas. Locker and shower accommodations must be provided to take care of large classes ranging from eighty to one hundred and twenty-five pupils. Leaders in the field of physical education assert that physical education to be educative should not range over thirty-five pupils per instructor.<sup>1</sup> Sufficient instructors should be provided for according to the number of pupils in the class.

To have physical education, not only as a procedure to keep all pupils physically fit and secure organic development, but as a teaching and learning subject, classes should average about thirty-five pupils per instructor. In large schools adequate space and a sufficient number of instructors should be provided. If several instructors for the same period with large groups are scheduled, this method will produce the maximum efficiency and accommodate large numbers of pupils in a single gymnasium or playground area.<sup>2</sup>

1. Williams, J.F., Dambach, J. and Schwendener, N., Methods in Physical Education. p.113.
2. Williams, J.F., Dambach, J. and Schwendener, N., Methods in Physical Education. p.113.





### Individual Differences

Physical education programs are stressing identical gymnastics and sport activities for all pupils without modifying programs to meet the individual differences. In one school pupils will be grouped for class instruction on a basis of physical fitness; in another the basis of division is scholastic attainment; while another found more frequently than either of these, is to group pupils having a common vacant period after other classes are scheduled.

The programs, no matter how excellent, were not considered adequate because they did not affect all the pupils in their respective schools. It was found that individuals who were ill or injured were allowed temporary excuses, but many pupils who were able to attend school regularly were not securing much benefit from some form of properly adapted physical education procedure. The pupils reporting to the physical education teacher with temporary excuses were sent to some one of the following places: the rest rooms, the study hall, or assigned to a modified activity period elsewhere.

Pupils assigned to afterschool athletic groups for practice during a given sport season, were returned to their regular gymnasium classes at the close of that particular sport. This however, occurred in only a few cases, the others were granted no exception from classes if engaged in intramural or interscholastic competition. No school considered whether the boys were securing sufficient exercise and activity outside





the school program. If the records of the physical director showed an index of all outside activities, the director could assign to each pupil that which really constitutes for him physical education.<sup>1</sup>

The medical examinations were given largely by a physician with the assistance of a nurse or the physical director. In some cases the director also co-operated. All schools had been reported that they had annual medical examinations and these had shown that the pupils in their schools were in better health than in the past. It was also found that the pupils were in better health than in the past. It was also found that the pupils were in better health than in the past.

The examinations were given annually and consisted of the following items: the history of the child, the measurement of height and weight, and the examination of the eyes, ears, nose and throat, lungs, and nutritional status. If the pupil was found to be in need of further examination he was advised to see his own physician, or to go to a clinic.

The function of the school medical service was not to make a diagnosis or to give treatment but to detect the child in the work of education who was in need of the services of the family physician, pediatrician or hospital doctor. The school service was not a general examination - a physical examination - but a medical diagnosis.

It is the opinion of the physical director to give physical education to the child mainly of the following items: age, height, weight, posture and development. Several schools are conducting lung capacity and spine exercises.





### Health Examination

The medical examinations were given always by a physician with the assistance of a nurse or the physical director. In some cases the dentist also co-operated. All schools but two reported that they had an annual medical examination and these two schools sent the pupils to their school physician when in doubt whether it was advisable for them to engage in vigorous activity.

The examinations were given annually and consisted mainly of the following items: the history of the child, the measurement of height and weight, and the examination of the eyes, ears, nose and throat, glands, skin, and nutritional status. If the pupil was found to be in need of further examination he was advised to see his own physician, or to go to a clinic.

The function of the school medical service was not to make a diagnosis or to give treatment but to assist the school in its work of education and to refer to the parents and to the family physician, children with remedial defects. The school routine was but a partial examination - a physical examination from a medical standpoint.

It is the custom of physical directors to give physical examinations which consist mainly of the following items; age, height, weight, posture and footprints. Several schools are recording lung capacity and spine deviations.





### Comments on Findings of Health Examination

There seems to be lacking a close relationship and contact between the personnel of the school medical service and the personnel of physical education. The medical service does not always function to eliminate unhealthful activities from the program. Furthermore, it does not always contribute to the objective of avoidance of preventable disease, and the development and maintenance of healthy bodies and minds. These facts should be primary aims in any well balanced program in physical education.

There is a lack of effort to guard against unhealthful over activity, and modification of individual programs when the physical condition of individual students require it. A need for closer follow-up service for the correction of remedial defects discovered in the health examination and a more co-operative spirit in the health program is also lacking.

The examination should preferably be made by the family physician. When the family physician acts as examiner, he does not record his findings in the same terms as the school examiner. The records are not similar in type, and are not in convenient form for school use and for filing with school health records.

Schools are not emphasizing the importance of having parents present when the examination is made in order to secure the interest of the parent in following up annual examinations. It would also help to avoid criticism, since boys should be striped for examinations, as no other pro-





cedure will permit reliable conclusions. A thorough examination is necessary to judge nutritional and health conditions of individual pupils.

Because the records do not constitute a cumulative record of the child the physical director cannot transfer the findings to his own record cards. The school medical examiner could vastly improve the value of his work if he would note his findings in understandable terms for educational purposes and thus, be of greater aid to nurses, physical directors and other school officials. There should be a better co-ordination between the school examiner and the physical instructor and the forms used should be prepared with their collaboration.

In physical education the desire to be fit for participation in sports was found to be one of the greatest motives for the observance of healthful practices.

The program as a group do not follow-up the data secured from the health examinations. In one-half of the schools the records of medical and physical examinations were not used and effort lost.

This is done but by the fact that program are not classified here according to their individual differences. Indeed frequently there is no program set up that provides for these individual differences.

School nurses and the staffs in some cases are checking children's health. Even in a few schools, where clinics are held, there is most effort made to utilize this valuable information.





### Keeping of Records

In the majority of the schools the records, after being secured from testing and measuring programs are filed and remain there, to all intents and purposes useless records in the office of the physical director. The hours spent by a physician and physical director in obtaining the data of the physical examination are largely wasted. The records are mute evidence for a job half completed because a follow-up method has not been attempted. This was especially true for the correction of physical defects.

### Use of Data Secured from Health Examinations

The programs as a group do not follow-up the data secured from the health examinations. In one-half of the schools the records of medical and physical examinations mean but time and effort lost.

This is borne out by the fact that programs are not classifying boys according to their individual differences. Indeed frequently there is no program set up that provides for these individual differences.

School nurses use the data to some extent in checking malnutrition. Only in a few schools, where clinics are held, there is much effort made to utilize this valuable information.





### Administration of Corrective Programs

Far more programs ignore the phase of correcting physical defects than any other important objective of physical education. The lack of corrective work appears to be the greatest outstanding need of physical education programs. No program is balanced and complete without such recognition. The development and expansion of this phase has been particularly slow in the East. Corrective rooms and special teachers for this purpose have not come to be an integral part of the Junior High School programs as in other parts of the country, especially the far West.

Three schools are attempting a corrective program in a limited and modified way. Two of the three schools employ trained teachers to carry on the activities specifically adapted to the needs of physically handicapped children who are temporarily or permanently unable to carry on beneficially the regular required class work. The other school is attempting corrective work for large classes which average sixty-two pupils per class.

The administrators believe that corrective programs are the work of the orthopedic surgeon and the medical man, and that they should have little to do with them other than to recognize the abnormality and to see that it is brought to the attention of the expert who can best handle it. Two types of defects which the directors feel they can advantageously handle are: correction of painful feet and correction of functional postural defects.





Five school programs are stressing preventive objectives which include the following:

- (1) Weak feet from becoming flat.
- (2) Spinal curves from becoming more exaggerated.
- (3) Postural deviations by strengthening the abdominal muscles and the muscles between the shoulder blades.

The remaining schools made no attempt to have a definite plan for the prevention or correction of physical defects.





### Tests and Measurements

It was found that physical education programs are not taking into account the need for measurement. From the fifteen schools, but eight were attempting to carry on a testing program, and of those eight, two in a limited way. The following kind of tests were found: Rogers Physical Capacity Test in but a single school; circumference of bicep muscles in another; ability and achievement tests given in moderate degrees in all the eight reporting having a measuring program.

The programs lack a "measuring stick" to record accurately to what extent there is development and improvement taking place, and to indicate to what extent the child is progressing from month to month and from year to year. The programs are not planning for the child's future or directing him into activities that will be of value to him in life. An attempt should be made to fit the program to the child instead of giving the same type of program for all.

The present judgments of progress and achievement are not accurate; there is need of scientific measuring to determine to what extent the aims of physical education are being achieved. Many teachers of physical education have not acquainted themselves with the scientific procedures which have been developed within the last five years. Much progress has been made, in setting up objective standards for classifying students and measuring their achievement, and in devising various methods of constructing tests.





Tests and measurements are particularly important. Although they serve many purposes, two are outstanding: first, the measurement of progress of individual learning, and secondly, the establishment of bases for marks.

Too many schools are taking it for granted that they are making progress in physical education and have not awakened to the value of a testing program. Schools will find it worth trying because the tests will detect defects of loopholes in their teachings. Tests will also help to check and record the pupils' progress systematically





### Intramural Programs

The intramural program which is much advertised does not function. From the total of fifteen schools, but four carried on a strictly intramural program. Six schools carried on a partial intramural program with a program of interschool and interscholastic competition, in order to select the most promising material in athletic ability to compete with other near-by schools after they finished their intramural program. The remaining five schools engaged entirely in interscholastic competition.

There is a trend toward making the intramural, interschool and interscholastic programs responsible for the building up of the foundation for the future major athletic sport teams in high school. There is a tendency to inject into the Junior High School, the prevalent Senior High School athletic program. The intramural program has been more firmly established in the far and middle West than it has been in the East.<sup>1</sup>

However, many follow in part the advise given in an article found in the Sixth Year Book of the National Education Association on the Development of the High School Curriculum from which I quote, "The Junior High School age is of vital importance in both boys' and girls' physical-moral development. To the physical education department falls the major responsibility, because of intimate contact in critical situations. The avoidance of over strain is an essential factor in the care of this group. The tendency to inject into the Junior High School the prevalent Senior High School athletic and social program is lamentable and fraught with

1. Mass. Dept. of Educ., Bureau of Physical Education, News Letter No.23  
Oct. 27, 1933.





danger."<sup>1</sup>

The intramural activity program instead of being one of the most important considerations in Junior High School program is willfully neglected. The amount of time devoted to physical education during each day is insufficient to satisfy the growth and needs of the boys. The physical education activities of the Junior High Schools are not being supplemented by long periods of natural play outside of school hours. As a whole, the functions providing activities which are natural, spontaneous and joyous in a suitable environment and with adequate supervision are not actually being carried out. This is borne out by a statement in a News Letter sent by the Massachusetts Department of Education, Bureau of Physical Education, to all physical education directors which states, "one of the criticisms of physical education which is hard to defend is the intramural program. The so-called big after school program we hear so much about is a myth."<sup>2</sup>

But two schools made an effort to have an athletic department aiming at activities for every student and to carry on a completely organized program which attempted to bring every individual, as far as possible, into some sport or activity. The most notable school attempting to carry on a program endeavoring to have every boy engaged in some activity was the Walter S. Parker Junior High School of Reading.

1. Department of Superintendence, The Development of the High School Curriculum, Sixth Year Book, National Education Association, Washington, D. C. Feb. 1928, p.463.
2. Mass. Dept. of Educ. Bureau of Physical Education. News Letter No.21, Jan. 23, 1932, p.1.





### Education for Leisure

The activities being taught for leisure time education are mostly the seasonal athletic sport activities of football, soccer, basketball, baseball, track and tennis. One school program is offering hand ball instruction and two others playing of quoits.

The physical education departments are not taking it upon themselves to give sufficient attention to training in activities that can be maintained through life. The physical education departments are assuming responsibility for training in skills that have a present carry-over value to the students, mainly in that they are a training to develop future high school athletes and not for the future as adults. The schools are not facing the problem of the future, which is, how we can use the increasing amount of leisure time more profitably from the standpoint of the individual and society. The children of today are not developing worthwhile hobbies and avocations for the future. The schools are not making it a matter of education to create within each individual the capacity for self-enjoyment in his free hours when he is left to his own resources.

The schools have an opportunity to develop at the Junior High School age interests and attitudes favorable to the continuance of participation in activities that are healthful, enjoyable, and that make for valuable friendly contacts.





### Content of Activity Program

The activities taught in the various programs can be classified under the following heads:<sup>1</sup>

- (1) Games and free play
- (2) Games of low organization
- (3) Athletics and sports
- (4) Fundamental skills
- (5) Individual self-testing activities such as stunts, tumbling, and apparatus exercises.
- (6) Self-defensive and personal contact activities
- (7) Corrective gymnastics
- (8) Calisthenics and other artificial exercises.

The activities used depended on the season, age and size of the classes. However, the factors of age and size of class played only a small factor in the activities used. The majority of programs give the same material for all grades, expecting better skills and technique from the older groups.

There is a tendency to emphasize a single phase of the program to the detriment of others. The coach without professional preparation in physical education is perhaps the biggest offender, yet, coaches with professional preparation are equally guilty in trying to develop future material for his, or the high schools' athletic teams. The result of such tactics is that the major part of the program activities is devoted to

1. White House Conference on Child Health and Protection. The School Health Program, Century Company, New York, 1932.





development of athletics and sports.

There is a lack of planning of programs; the teachers are teaching from memory, the inspiration of the moment, or daily inclination.

With exception of three schools, no programs for daily, monthly, and yearly guidance were available. Only one school was able to produce a program covering in detail the work covered during the previous year.

Some schools were holding an art-of-days. These schools having a limited play area show it was not possible to carry on some kind of activities and not take advantage of it. The schools did not have the facilities to conduct physical education during art-of-days. As a whole, the schools were taking advantage of the fresh air and sunshine believing there is no substitute for it.

However, possibly the work in physical education should be carried on art-of-days. "However, pupils should not be subjected to conditions that will be conducive to lowering bodily resistance and induce discomfort. During periods of snow or rainfall, when the ground is muddy, and usually when the temperature is below forty degrees Fahrenheit, it is better to suspend physical education classes indoors."<sup>1</sup>





### Place for Classes

With the exception of two schools the classes whenever possible were being carried on out-of-doors. Three schools having a limited play area where it was not possible to carry on some form of activity did not take advantage of it. Two schools did not have the facilities to conduct physical education classes out-of-doors. As a whole, the schools were taking advantage of the fresh air and sunshine believing there is no substitute for it.

Whenever possible the work in physical education should be carried on out-of-doors. "However, pupils should not be subjected to conditions that will be conducive to lowering bodily resistance and undue discomfort. During periods of snow or rainfall, when the ground is muddy, and usually when the temperature is below forty degrees Fahrenheit, it is better to conduct physical education classes indoors."<sup>1</sup>

1. White House Conference on Child Health and Protection, The School Health Program, p.210.





### Equipment

The equipment, which includes in the main those facilities which are movable and usually need not to be replaced as frequently as supplies, were found adequate to meet the types of program being used. From all appearances schools which have adequate equipment do not use it to their best advantage. Equipment for physical education is just as essential as machines in the manual training department. Many activities desirable in physical education are possible only when certain types of equipment are on hand.

Supplies, including various types of balls, nets, bats, etc., which must be continually replaced were not taken into consideration. The schools visited had sufficient supplies to permit acquirement of skills by pupils taking part in the program.

The minimum essentials in gymnasium equipment should consist of: basketball equipment, gymnasium mats, volley ball equipment, indoor baseball equipment and jump standards. Desirable additions suggested included horizontal bar, climbing ropes, parallel bars, horses, and bucks.<sup>1</sup>

#### A. Indoor facilities:

1. Gymnasium - The gymnasiums varied in sizes and locality in the schools. It still is a practice to put the gymnasiums down in the basements where there is a lack of fresh air and sunshine. The sizes of the gymnasiums

1. White House Conference on Child Health and Protection, The School Health Program, p.217.





were not adequate for the large number of pupils taking physical activities. In order to accommodate many classes, it was a question of the number of gymnasiums rather than their size. A large gymnasium divisible into two separate gymnasiums was used in five schools. These were not desirable according to instructors because of interference with each other. A school auditorium was found in use in only one school. The lack of storage space for equipment was a factor that needed attention. The offices of the directors were being used for consulting rooms but not adequately equipped and were remote from the gymnasiums.

2. Locker rooms - The locker rooms as a whole were not light and airy, many being in dark stuffy places. The lockers were of varied types and the locker rooms were inadequate in size to meet the demands of large classes. Four schools supplied clean towels. The click combination padlock is being used in the majority of schools.
3. Shower baths - In all but four schools the shower baths were adequate to care for the large classes. A period of less than forty-five minutes was too brief and permitted bathing at the expense of valuable lesson time. In several schools the





drains were not large enough to take care of waste water and caused flooding of locker rooms. The central control by which the instructor can adjust the temperature of the water from hot to cold for all shower heads is being used in eight schools.

#### B. Outdoor facilities:

The size and number of fields did not coincide with the size of the schools. Many of the fields had limited space and were unsafe for athletic types of games. The spaces were not large enough for both boys and girls to play at the same time, particularly after school hours. Several school grounds were not in condition to be of the greatest value. There is need of equipment for outdoor basketball, volley ball, tennis, horse shoe pitching or quoits, and ball fields.





### Aims and Objectives

An examination of the statements of the aims and objectives as shown in the schools examined, reveals that there was a lack of agreement as to the aims and objectives of physical education as well as the means to be followed in attaining them.

The emphasis is being placed on worthy use of leisure time in some places, while in others the emphasis was placed on the rules of healthful living. Some physical educationists urge instruction in the hygiene objective, while others place emphasis on the acquisition of skills and the cultivation of interest in recreational activities.

It was apparent to the observer that the aims given by several instructors were not lived up to in actual practice. In almost every case the offender was a man hired to coach athletic teams, and teaching in the gymnasium had been added as additional work in order to justify his salary. The coaches without professional preparation in physical education were using the gymnasium classes to build up varsity material for their high school teams and neglecting the weaklings. It follows inevitably that these untrained men are unaware of the broader aspects of physical education training and have not been conspicuously successful in building up a comprehensive physical education for all the boys.





### Natural Program

There is a decided movement away from the old fashioned formal drill type of program toward the so-called natural type of activity.

The natural program is concerned with the activities classified as simple play and games, athletic sports, fundamental skills, individual and self-testing activities, dramatic activities such as dancing and dramatic games, and corrective gymnastics. The contents of the natural programs are mainly activities such as play, games, athletics, stunts, tumbling, skills, practice, dancing and exercises on apparatus. The material is planned so that the learning would result in securing desirable attitudes and habits of conduct along with skill and organic development.

In the natural program care is taken to assure a close relationship between gymnastic drill and real activity. It was felt that natural gymnastics were superior to formal gymnastics in that the former has a direct carry-over value to the game, stunt, or athletic activity and is not considered as an end in itself.

It was doubtful if formal gymnastics had the same educational value as natural gymnastics when the appeal to native interest, carry-over value to other activities, socializing influence, and health are considered. However, teachers of physical education feel that formal gymnastics should not be abandoned.





### Basis for Marking

The basis for marking pupils in physical education, as in other academic subjects, has not been uniform. There exists no standard method of marking pupils compared to other school subjects. The basis for grading has a wide variation, hardly any two grading methods being alike and based on the same factors. The factors considered in computing the marks ranged from a complicated award system to mere regularity of attendance. The marks themselves having little value except to indicate to the pupils and others the teacher's opinion of the students' work.

An inventory of common practices used by physical education teachers in giving grades to pupils shows that a large percentage base their grades on several of the following:

1. Attendance
2. Attitude toward the activity
3. Interest
4. Conduct in class
5. Achievement in physical skills or in game skills
6. Effort
7. Improvement

To a few teachers, achievement tests are of great value because they serve the important purpose of establishing a basis for marks in physical education, when grades are demanded. Also the results can be





used to justify students' grades.

Theoretically, marks mean individual progress in subject matter; but if the record of all these other factors must show in one mark, which seems well nigh impossible, achievement tests are the only means of recording progress objectively. They serve the further purpose for directing the physical instructor's judgment toward a better balance.

A basis for marking pupils in physical education has been developed by the Springfield Public Schools which consists of the following:<sup>1</sup>

1. Attendance
2. Effort or spirit
3. Posture
4. Accomplishment

The following ration was suggested:

|                   |           |
|-------------------|-----------|
| 1. Attendance     | 35        |
| 2. Effort         | 35        |
| 3. Posture        | 15        |
| 4. Accomplishment | <u>15</u> |
|                   | 100       |

The practice of marking pupils on conditions that may be beyond their control is open to just criticism.

It should be possible for any pupil regardless of physical handicaps to obtain a ranking of "B".





### Demonstrations

The use of demonstrations, play days, field days, and athletic carnivals are planned and arranged because the schools find it desirable to let the public know what they are doing. From fifteen schools visited, but four schools do not hold some form of exhibition for the parents and taxpayers. These pupil demonstrations provide definite achievement goals for teacher and pupils. They permit large numbers to take part; and this indirectly gives publicity and support to their program, because parents and taxpayers attend the demonstrations in large numbers.

It was found during the survey while schools were practicing for their demonstrations, three schools were planning on presenting a program not an outgrowth of regular class and gymnasium work but of unrelated material. The practicing for the event used up a large part of the school year, which is unjustified. Boys were learning to swing Indian clubs, and wands, yet the activity was not given to the classes as a unit.





### Summary

(1) The programs as measured by the criteria drawn up with the idea of showing how many of the present physical education programs can be better developed so they will measure more objectively the educational objectives of a worthwhile program shows that the present programs can be greatly improved.

(2) The procedure of measuring the elements of a school's physical education "set-up" and of assuming a close correlation between the "set-up" and progress of the students tends to show that the better the "set-up" the greater are the chances that the pupils will make progress.

(3) Physical education is not receiving the full approval of school administrators. This may be partly due to the fact that physical education thus far has not proved its value in many programs and the school administrators have not given physical education a chance to treat the pupils according to the needs of individual differences.

(4) From this study of these program the following suggestions are designed to make the programs more worthwhile in their development and to enable them to measure more objectively:-

- ✓ 1. Tests and measurements in physical education should be further developed so value of instruction of instructor can be better determined.

2. Adapt physical education program to individual needs





of the pupils.

3. Schedule physical education first.

4. Set-up definite aims and objectives to seek specific outcome.

5. Record of pupil's outside activities.

6. Organize better programs.

7. Base programs upon educational procedure - make for progressive graded lesson plans.

8. Have activity periods of at least sixty minutes duration and at least four periods per week.

9. Develop recreational leisure time attitude.

10. Provide larger intramural programs

11. More corrective and preventive gymnastic programs.

12. Data secured from health examinations to be used to greater advantage.

13. Hold classes out-of-doors when possible.

14. Unless followed by a shower, no strenuous activity should be given.





### Constructive Program for a Junior High School

A program of physical education should consist of activities adapted to the individual needs, interests, and abilities of each child, intelligently directed by the teacher.

The program should be based upon the individual differences of pupils as revealed by all the various types of examinations and tests recorded within the school. This means a classification of pupils according to their growth and development status. A grouping like this would eliminate the common practice of grouping pupils together who have the same free period. A method of avoiding existing conditions would be to write physical education on the student's program first.

In order to classify pupils at least three factors are essential. The most logical factors are school grade, health examination, and a consideration of individual difference in motor or physical capacity of pupils within a given grade.

To provide program makers with the information, physical examinations whenever possible should be given in the spring term previous to entering Junior High School and before the close of school term in the seventh, eighth and ninth grades. The grouping of the pupils can be determined by giving them a health examination and physical capacity tests. Certain parts can best be given by the physicians, dentist or nurse, while other parts can best be given by the physical director. From the records secured in co-operation they can determine the extent and frequency of





examinations. *One of the following:*

The health examination covers two separate examinations which are the medical and physical, and the sensory tests. The most important is the medical examination by a physician who determines (1) the presence of disease or defects which might interfere with normal growth and development (2) disease which endangers the health of other pupils (3) disease which prevents pupils from taking full advantage of the opportunities offered in school for educational progress.

The medical examiners should certify as to a pupil's fitness to undergo future strength tests and enter into active participation in sports, athletics, and strenuous activities. The diagnoses found will assist physical educators and other school officials to make the best use of the professional advice.

The medical examination should include the following:<sup>1</sup>

|        |       |                    |       |
|--------|-------|--------------------|-------|
| skin   | spine | state of nutrition | lungs |
| eyes   | arms  | nervous system     | heart |
| nose   | legs  | personal history   |       |
| throat | feet  | family history     |       |

The results should be entered on an accumulative record card with a rating of intensity of the defects.

A part of the health examination is composed of physical and sensory tests.<sup>2</sup> These are very useful to the physical director as one factor to be used in classification of the pupils. The physical director can conduct these himself, thereby securing first hand information of each pupil.

1. Rogers, F.R., Fundamental Administrative Measures in Physical Education, p.87.

2. Rogers, F.R., Fundamental Administrative Measures in Physical Education, Chapter IX.





The test consists of the following:

1. Posture. The two best measuring devices are the silhouetograph and the photograph.
2. Feet. Footprints are easily recorded by the painting of the feet with a stain and pressing them on absorbent paper or by the use of a pedograph.
3. Vision is best measured by a standard procedure using Snellon Symbol charts.
4. Hearing is best measured by a phonandimeter.

One of the most fundamental of all measures to be applied by physical educators are the physical capacity or strength tests.<sup>1</sup> These tests should be given only after the medical examination, and should have the medical examiners certification of the fitness of the pupil to undergo the test.

1. Rogers, F.R., Fundamental Administrative Measures in Physical Education. pp.109-113.





### Aims and Objectives

A program to be successful must be based on scientifically selected objectives. From a careful study the following objectives were selected and have been validated by a group of selected experts in the field of education.<sup>1</sup>

1. To contribute continuously to the development of nerve and organic power, as shown in muscular development, neuro-muscular control, normal increase in growth, increased endurance and rapid recovery from fatigue;
2. To contribute to the development of good posture through suitable environment, equipment, and activities and by wholesome attitudes;
3. To develop continuously the fundamental physical skills used in daily life and in recreational activities, such as running, jumping, climbing, striking, throwing, and dodging;
4. To have, through physical activity, increasing opportunity for experience in creative expression, as in developing games, revising rules, and developing rhythmic plays;
5. To develop continuously skill in, and a wholesome attitude toward, many natural activities in order to secure participation in physical activity during leisure time.

1. White House Conference on Child Health and Protection, The School Health Program, p.212.





### Activity Program

Boys should have an opportunity to engage in a large number of activities of various types. In order that they may choose wisely those activities which they enjoy most and those in which they are likely to experience success, a certain degree of proficiency in motor skills must be acquired.

#### List of activities<sup>1</sup>

##### Fall Activities:

Games and sports: speedball, soccer, volley ball, handball, touch football, games of low organization, play ground baseball and horse shoes or quoits;

Self-testing activities: boxing, free play, stunts without apparatus, swimming, diving and individual correctives;

Out-of-school activities: hiking, trailing, camping, recreational clubs, scouting and hunting.

##### Winter activities:

Games and sports: basketball, volley ball, indoor baseball, handball, swimming, indoor track, gymnasium activities, games of low organization;

Dancing and dramatic activities: athletic dances, clog dances, character dances, morris dances and sword dances;

1. White House Conference on Child Health and Protection, The School Health Program, p.212.





Self-testing activities: boxing, wrestling, stunts with and without apparatus, swimming and diving, and individual correctives;

Out-of-door activities: skating and sledding.

#### Spring Activities:

Games and sports: baseball, playground baseball, volley ball, handball, horse shoes, track, relays, games of low organization and swimming;

Self-testing activities: swimming and diving, stunts with and without apparatus, track and field sports, shot put, running high jump,

running broad jump, standing broad jump, dashes not over seventy-five yards and individual correctives;

Out-of-door activities: hiking, trailing, scouting, camping, and recreational clubs.





### Grouping

From the result of medical examination, and physical, and sensory, and capacity tests, the following groups can be made possible into at least three groupings as, corrective, normal and privileged groups.

The assignments to corrective groups can be made as follows: from tests prepared by the school physicians, from pupils' examination record cards, and from lists independently prepared by the physical director.

The list of the physical director should be of deficiencies found from his physical and sensory test and physical capacity test. In determining those of physical fitness assign all pupils below a fifteen percentile in Physical Fitness Indices <sup>1</sup> to the corrective class. If the numbers by various tests exceed the limit which can be accommodated, with the help of the physician all those on the physical directors' list should be stricken from the list except those most needing individual attention.

In the assignment to normal groups all boys not in the corrective group should be assigned to regular class work. In grades eight and nine the upper quartile of Physical Fitness Indices may be established as a dividing point. Pupils with Physical Fitness Indices above this level may be permitted to elect leaders' class activities instead of the regular program.

In grade nine the upper quartile of Physical Fitness Indices should be excused from an required classes. <sup>2</sup>

1. Rogers, F.R., Fundamental Administrative Measures in Physical Education p. 204.
2. Rogers, F.R., Fundamental Administrative Measures in Physical Education, p.193.





The activities of the physical education program should be selected, organized and administered in such a manner that it will be hygienic from a mental, physical and emotional point of view.

The schedule, if possible, should provide for biological requirements of the boys. In the past there has been entirely too little time given to physical education in school programs.





### Intramural Program

The amount of time devoted to physical education during each day is insufficient to satisfy the growth needs of a child. The physical education activities of the school should be supplemented by long periods of natural play outside of school hours. One of the functions of the Junior High School physical education program should be to provide activities which are natural, spontaneous, and joyous in a suitable environment and with adequate supervision.

The athletic department should have for its aim intramural sports for every student and should carry on a completely organized program attempting to bring every individual into some sport or activity.

A successful intramural program depends on adult leadership with student management and equality between competing teams. The most successful and effective method of forming squads of equal ability is to use the scores of strength indices found from the physical capacity test previously given the students and divide them into teams of equal ability.





### Bibliography

- Blair, Herbert, Objectives in Physical Education, Education, April 1933.
- Commonwelath of Massachusetts, A Course of Study in Health Education, Bulletin of the Department of Education, Number 19, 1931.
- Cowell, Charles C., Physical Education and Its Relationship in the High School, Journal of Health and Physical Education, March 1933.
- Department of Superintendence, The Development of the High School Curriculum, Sixth Year Book, National Education Association, Washington, D. C., February 1928.
- Hetherington, Clark, W., School Program in Physical Education, World Book Company, New York, 1922.
- Koos, L. V., The American Secondary School, Ginn and Company, 1927.
- LaPorte, William R., Physical Education Contributes to the Seven Cardinal Principles, Journal of Health and Physical Education, Vol.17, March 1933.
- Rogers, Frederick R., Physical Capacity Tests in the Administration of Physical Education, Teachers College, Columbia University, New York, 1926.
- Rogers, Frederick R., Fundamental Admininstrative Measures in Physical Education, Pleiades Company, 1932.
- Springfield, Massachusetts., Physical Education, Public Schools, Springfield, Massachusetts, 1929.
- Symonds, Percival M., Measurement in Secondary Education, Macmillan Company, 1927.
- White House Conference on Child Health and Protection, The School Health Program, The Century Company, 1932
- Williams, Jessie F., The Organization and Administration of Physical Education, Macmillan Company, New York, 1922.
- Williams, J. F., Principles of Physical Education, Second Edition, W. B. Saunders Company, Philadelphia, 1932.





Williams, J. F., Dambach, John I., and Schwendener, Norma, Methods in Physical Education, Saunders Company, 1932.

Wood, T. D., and Cassidy, R. F., New Physical Education, Macmillan Company, New York, 1927.

References that follow have been selected for their usefulness.

Bowen, Wilbur, P., The Conduct of Physical Activities, A. S. Barnes and Company, New York, 1927.

Bowen, W. P. and Mitchell, E. D., The Theory of Organized Play, A. S. Barnes and Company, New York, 1927.

Brace, D. K., Measuring Motor Ability, A. S. Barnes and Company, New York, 1917.

Clark, L., Physical Training, Benjamin H. Sanborn and Company, Chicago, 1917.

Cromie, William J., Gymnastics in Education, Lea and Febiger, Philadelphia, 1923.

Drew, L. C., Individual Gymnastics, Lea and Febiger, Philadelphia, 1925.

Lowman, C. L., Colestock, C. and Cooper, H., Corrective Physical Education for Groups, A. S. Barnes and Company, New York, 1929.

Pearl, N. H., and Brown, H.R., Health by Stunts, Macmillan Company, New York, 1930.

Rodgers, Martin, A Handbook of Stunts, Macmillan Company, New York, 1929

Spaldings Athletic Library, American Sports Publishing Company, New York

Skarstrom, William, Gymnastic Teaching, American Physical Education Association, Ann Harbor, Michigan, 1921

Staley, S. C., Individual and Mass Athletics, A. S. Barnes and Company, New York, 1929.

Staley, S. C., Games, Contests and Relays, A. S. Barnes and Company, New York, 1929.





Tanner, J. R., A Game Program in Physical Education, Cinn and Company, Boston, 1929.

Wayman, A. , Education Through Physical Education, Lea and Febiger, Philadelphia, 1928.

Williams, J. F., and Hughes, W. L., Athletics in Education, S. B. Saunders Company, Philadelphia, 1930.

Williams, J. F., and Morrison, W. R., A Textbook of Physical Education, W. B. Saunders, Company, Philadelphia, 1931.





Appendix

## Report of the Investigation and Observation

School A<sup>1</sup>

1. Number of boys in school 251.
2. Length of periods - grades seven and eight - one period of sixty minutes and one of thirty minutes. Grade nine, thirty minute periods.
3. Number of periods per week - two.
4. Size of largest class - forty. Smallest class - fourteen. Average class - twenty-six.
5. To what extent is program modified to meet individual differences - assigned to class instruction by year in school and division.
6. How often is a medical examination given and by whom - once a year by a school physician.
7. How often is a physical examination given by the physical director - none.
8. Records kept - medical records are kept by the school nurse.
9. To what extent is data used for follow-up purposes - the school nurse follows up weight for malnutrition cases.
10. Method of administering corrective work - no program attempted.
11. What tests and measurements given - none.
12. Number of boys participating in intramural program - no intramural program. Interscholastic competition.
13. List of activities taught for leisure time education - tennis, volley ball, and soccer.
1. List of the schools has been filed with adviser.





14. Program of activities:

Fall - soccer and football fundamentals

Winter - apparatus, tumbling, marching, free exercises, basketball, volley ball, and games of low organization.

Spring - baseball, track, and tennis.

15. Classes held out-of-doors when possible - yes.

16. List of equipment:

|          |              |       |
|----------|--------------|-------|
| Piano    | stall bars   | ropes |
| Rings    | Vaulting box | mats  |
| High bar |              |       |

Indoor facilities:

Exercise floor, width sixty-five feet, length seventy-five feet, height twenty-seven feet.

Lockers have adequacy, safety, sanitation and convenience.

Showers consist of nine water heads.

Outdoor facilities:

Large playground unbroken by buildings.





School B

1. Number of boys in school - 553
2. Length of periods - forty minutes.
3. Number of periods per week - two.
4. Size largest class - fifty-seven. Smallest class - thirty-one. Average class - forty-four.
5. To what extent is program modified to meet individual difference - only in that three corrective classes are separated from the group.
6. How often is a medical examination given - once a year by a physician.
7. How often is physical examination given - four times a year by physical director which consist of age, height, weight and posture.
8. Records kept - yes.
9. To what extent is data used for follow-up work - in checking height, weight, posture and for correction of physical defects.
10. Method of administering corrective work - three classes which come twice a week. The different classes are extremely large with groups of sixty, sixty-two and sixty-seven boys respectively. The work is almost identical for all except in extreme classes.
11. What tests and measurements given - achievement tests in skills on apparatus, in baseball, track and basketball.
12. Number of boys participating in intramural program - no intramural program. Interscholastic competition, in football, baseball, soccer and track. Efforts are made to develop athletes for the high school.
13. List of activities taught for leisure time education - dancing, tennis, track, baseball and soccer.





#### 14. Program activities:

Fall - soccer and football fundamentals.

Winter - apparatus, boxing, corrective work, marching, pyramid

building, stunts, free exercises, games of low organization, tumbling and wrestling.

Spring - baseball, track and tennis.

#### 15. Classes are held out-of-doors whenever possible - yes.

#### 16. List of equipment:

ten mats  
beat board

horse  
Swedish box

spring board

#### Facilities:

Large play field, four tennis courts football  
soccer baseball

Exercise floor, thirty feet by one hundred feet, height twelve feet.

No lockers. No showers.





School C

1. Number of boys in School - eighty-five
2. Length of periods - seventy-five minutes.
3. Number of periods per week - one.
4. Size of largest class - fifty. Smallest class - twenty-five. Average class - thirty-two.
5. To what extent is program modified to meet individual differences - only in so far as serious cases of physical defects are given special work by the corrective teacher.
6. How often is a medical examination given - once a year by a school physician.
7. How often is a physical examination given - twice a year by physical director who checks pupils' posture, weight, height and foot conditions.
8. Records kept - yes.
9. To what extent is data used for follow-up purposes - a small beginning was attempted this year, to be broadened next year in regard to posture, weight and condition of feet.
10. Method of administering corrective work - a clinic attempted to care for serious physical defects. The classes were small in number so individual attention could be given to each.
11. What tests and measurements given - none.
12. Number of boys participating in intramural program:
  - Fall - football - sixty
  - Winter - basketball - sixty-five
  - Spring - track and baseball - fifty





13. List of activities taught for leisure time education - volley ball, soccer, tag football, baseball, and basketball.

14. Program of activities:

- Mostly a play activity program with some formal work.
- Fall - soccer, football, fundamentals, volley ball and playground games.
- Winter - health instruction, volley ball, basketball fundamentals, rope climbing, physical efficiency tests, and games of various types.
- Spring - track and field fundamentals, volley ball and baseball fundamentals.

15. Classes held out-of-doors when possible - yes.

16. List of equipment:

Parallel bar Mats

Indoor facilities:

Exercise floor width thirty feet, length forty feet, height twelve feet.

No showers. Adequate lockers.

Method of administering cooperative work - during class sessions and during out-of-class sessions.

Method of evaluating progress - Regular Physical Efficiency Tests given three times a year to follow-up the results in detail each year.

Number of days in intramural program:

Football - football and soccer - 125.

Volleyball - basketball - 100.

Spring - track and baseball - 125.

Number of activities taught for leisure time education - basketball





School D

1. Number of boys in school - 140
2. Length of periods - forty minutes
3. Number of periods per week - three.
4. Size of largest classe - forty. Smallest class - twenty-five. Average class - thirty.
5. To what extent is program modified to meet individual difference - only to the extent those secured by physician.
6. How often is a medical examination given - once a year by school physician.
7. How often is a physical examination given - once a year by the physical director.
8. Records kept - medical, yes. Physical, no.
9. To what extent is data used for follow-up purposes - none.
10. Method of administering corrective work - during class activities posture stressed and corrective drills are given.
11. What tests and measurements given - Rogers Physical Capacity Test was given this year and a plan to follow-up the results in detail next year.
12. Number of boys in intramural program:  
Fall, - football and soccer - 135.  
Winter, - basketball - 100.  
Spring, - track and baseball - 125.
13. Listing of activities taught for leisure time education - seasonable





games of soccer, baseball, basketball and track.

14. Program of activities:

Fall, - soccer and touch football.

Winter, - apparatus on Mondays and Fridays consisting of formal work.

Game program on Wednesdays which consists of games of low organization.

Spring, - track and baseball.

15. Classes held out-of-doors where possible - yes.

16. List of equipment consists of three mats, parallel bar and vaulting bar.

Indoor facilities:

Exercise floor is small assembly hall approximately.

Sixty feet square.

No showers.

No lockers.

Outdoor facilities:

Large playground unbroken by buildings containing two acres.

Fall - soccer, touch football and victory ball - 190.





School E

1. Number of boys in school - 250
2. Length of periods - fifty-five minutes.
3. Number of periods per week - four for grades seven and eight, two for grade nine.
4. Size of largest class - fifty-two. Smallest class - thirty-nine. Average class - forty-five.
5. To what extent is program modified to meet individual differences - only to attempt correction of serious physical defects by a corrective clinic.
6. How often is a medical examination given - once a year by the school physician.
7. How often is a physical examination given - the physical director does not give physical examinations.
8. Records kept - yes.
9. To what extent is data used for follow up purposes - to determine those pupils needing corrective work and their improvement.
10. Method of administering corrective work - in a corrective clinic by a special corrective teacher with small classes.
11. What tests and measurements given - as an incentive in game skills, ability tests on achievement tests are given at intervals during the year.
12. Number of boys participating in intramural program:  
 Fall - soccer, touch football and victory ball - 200.





Winter, basketball - 220

Spring - baseball, track and swatball - 180.

13. List of activities taught for leisure time education - dancing, baseball track, touch football and games of low organization.

14. Program of activities:

Fall - soccer, touch football and victory ball.

Winter - apparatus, boxing, dancing, pyramid building, stunts, tumbling, wrestling, games of low organization, free exercises and marching.

Spring - baseball, track and swatball.

15. Classes held out-of-doors when possible - yes.

16. List of equipment:

|                |              |                |
|----------------|--------------|----------------|
| piano          | horse        | climbing ropes |
| mats           | parallel bar | rings          |
| horizontal bar | stall bars   | ladder         |

Indoor facilities:

Exercise floor width sixty feet, length eighty feet, height twenty feet.

Rest room.

Corrective room.

Adequate lockers which had sanitation and conveniences.

Adequate shoer facilities.

Outdoor facilities:

Playfield consisting of two acres unbroken by buildings and fenced in.





School F

1. Number of boys in school 256
2. Length of periods - forty-five minutes.
3. Number of periods per week - two.
4. Size of largest class - fifty-one. Smallest class - thirty. Average class - thirty-six.
5. To what extent is program modified to meet individual difference - only for those receiving corrective work.
6. How often is a medical examination given - once a year by school physician.
7. How often is a physical examination given - twice a year by the physical director.
8. Records kept - yes.
9. To what extent is data used for follow-up purposes - to determine pupils needing corrective activities.
10. Method of administering corrective work - once a week a class meets for individual instruction, their needs having been determined in cases of poor posture by the use of photograph. Posture is stressed in class activities to the extent that it is nearly two-thirds of the winter program.
11. What tests and measurements given - use of photography in determining improvement in posture.
12. Number of boys participating in intramural program:
  - Fall - soccer - 88.
  - Winter - handball - 30.





Spring - track and baseball - 200.

13. List of activities taught for leisure time education - handball, volleyball, soccer and track.

14. Program of activities:

Fall - soccer and tag football.

Winter - informal game program, posture work apparatus, tumbling, stunts, indoor track and basketball fundamentals.

Spring - track.

15. Classes held out-of-doors when possible - yes.

16. List of equipment:

mats

parallel bar

Indoor facilities:

Exercise floor forty feet by forty feet when used in conjunction with girls, separately width forty feet, length eighty feet and height twenty-five feet.

Shower facilities inadequate.

Lowars inadequate.

Outdoor facilities:

Large playground but not attached to school grounds, approximately three hundred yards distance from school buildings.





School G

1. Number of boys in school - 280.
2. Length of periods - sixty minutes.
3. Number of periods per week - two for grades seven and eight, one for grade nine
4. Largest class - thirty five. Smallest class - twelve. Average class - twenty-five.
5. To what extent is program modified to meet individual differences - only to the extent that those with minor physical defects do special corrective work by themselves during regular activity period during the winter term.
6. How often is a medical examination given - once a year by a school physician.
7. How often is a physical examination given - once a year by physical director and oftener for defective pupils.
8. Records kept - yes.
9. To what extent is data used for follow-up purposes - to determine if those with minor physical defect show improvement.
10. Method of administering corrective work - pupils with physical defects do assigned corrective work during regular assigned activity period.
11. What tests and measurements given - muscular measurement of the biceps.
12. Number of boys participating in intramural program -  
 Fall - football 100 boys fully equipped, four organized teams which later in season have interscholastic competition with other schools in a league.





Winter - basketball-126

Spring - baseball + 120.

13. List of activities taught for leisure time education - quoits, volley ball, box hockey, speed ball.

14. Program of activities:

Fall - touch football and football fundamentals.

Winter - apparatus, corrective work, free exercises, games of low organization, marching, stunts, volley ball, and tumbling.

Spring - track and tumbling.

15. Classes held out-of-doors when possible - yes.

16. List of equipment:

Mats

Climbing ropes

Rings

Parallel bars

Outdoor facilities:

Play space of one and one-half acres, unbroken by buildings.

Indoor facilities:

Exercise floor, width thirty feet, length sixty-five feet, height fourteen feet.

Lockers do not have convenience but have sanitation, safety and adequacy.

Shower room not adequate, three water heads and small in size.

Internal arrangements are very poor.

At times it is necessary for boys to use lunch room to exercise in when period conflicts with girls class.





School H

1. Number of boys in school - 455.
2. Length of periods - forty-five minutes.
3. Number of periods per week - two.
4. Size of largest class - fifty-three. Smallest class - thirty-eight.  
Average class - forty-two.
5. To what extent is program modified to meet individual differences -none.  
The classes do not meet regularly together for both their periods each week. The assignment to classes is largely irregular periods left after rest of pupil's program is made up.
6. How often is a medical examination given - once a year by the school physician.
7. How often is a physical examination given - once a year - the physical director does not give examinations.
8. Records kept - yes.
9. To what extent is data used for follow-up purposes - none.
10. Method of administering corrective work - not attempted.
11. What tests and measurements given - achievement test on skills.
12. Number of boys participating in intramural program - basketball 80.
13. List of activities taught for leisure time education - seasonal sports; baseball, track, basketball, soccer and touch football
14. Program of activities:  
Fall - soccer and touch football.





Winter - apparatus, marching, stunts, free exercises, tumbling and wrestling.

Spring - baseball and track.

15. Classes held out-of-doors when possible - no.

16. List of equipment:

Piano

Parallel bars

Mats

Horse

Indoor facilities:

Exercise floor width forty feet, length seventy feet, height thirty feet.

Lockers have convenience, safety and adequacy, but not sanitation.

Shower room has ten water heads but seldom used as drainage is poor.

Outdoor facilities:

Large unbroken playground containing four acres.





School I

1. Number of boys in school - 195.
2. Length of periods - forty-five minutes.
3. Number of periods per week - two.
4. Size of largest class - forty-five. Smallest class - thirteen. Average class - thirty-five.
5. To what extent is program modified to meet individual differences - none.  
Students assigned to classes by year in school and largely irregular periods left after rest of program is made up. Classes do not meet regularly together for both of their periods each week.
6. How often is a medical examination given - only at request of class instructor or parent.
7. How often is a physical examination given - only at request of parent.
8. Records kept - no.
9. To what extent is data used for follow-up purposes - none.
10. Method of administering corrective work - no attempt made to carry out this program.
11. What tests and measurements given - none.
12. Number of boys participating in intramural program -  
Fall - football - 20.  
Winter - basketball - 40.  
Spring - track and baseball - 30.
13. List of activities taught for leisure time education - volley ball,



baseball and track.

14. Program of activities:

Fall - football, relay games, games of low organization.

Winter - basketball fundamentals, basketball, volley ball.

Spring - formal exercises on apparatus, tumbling, indoor baseball and track.

15. Classes held out-of-doors when possible - impossible, no play yard.

16. List of equipment.

Three mats

Rings

Horse

Climbing ropes.

Indoor facilities:

Exercise floor, width thirty-five feet, length sixty-five feet, height eighteen feet.

Lockers do not have convenience, adequacy, sanitation or safety.

Outdoor facilities:

No play yard.





School J

1. Number of boys in school - 248.
2. Length of periods - forty-five minutes.
3. Number of periods per week - two.
4. Largest class - sixty-two. Smallest class - twenty-three. Average class - forty-eight.
5. To what extent is program modified to meet individual differences - none.
6. How often is a medical examination given - once a year by a school physician.
7. How often is a physical examination given - three times a year which consists of examination of feet and posture.
8. Records kept - yes.
9. To what extent is data used for follow-up purposes - none.
10. Method of administering corrective work - a special group meets once a week.
11. What tests and measurements given - none.
12. Number of boys participating in intramural program -
  - Fall - football - 170.
  - Winter - basketball - 216.
  - Spring - baseball - 180.
13. List of activities taught for leisure time education - spud, volley ball, baseball.
14. Program of activities:





Fall - football fundamentals

Winter - tumbling, basketball skills, free exercises, games of low organization, wand and dumb-bell drills, marching, and calisthenics.

Spring - baseball and track.

15. Classes held out-of-doors when possible - yes.

16. List of equipment:

Vaulting box

Wands

Mats

Dumb-bells

Indoor facilities:

Exercise floor, width forty-five feet, length one hundred twenty feet, height twenty-two feet.

Lockers had convenience, sanitation, safety and adequacy.

Showers were adequate.

Outdoor facilities:

Fenced in playground unbroken by buildings.



School K

1. Number of boys in school - 155.
2. Length of periods - forty minutes.
3. Number of periods per week - two.
4. Size of largest class - forty-two. Smallest class - twenty-nine.  
Average class - thirty-one.
5. To what extent is program modified to meet individual differences - none.  
The boys and girls are not separated, they are in the same classes receiving same instruction and doing the same activities. The pupils are grouped for class instruction on a basis of year in school and division.
6. How often is a medical examination given - only when requested by physical instructor and home room teacher.
7. How often is a physical examination given - the weight and height are taken every month.
8. Records kept - none except weight and height.
9. To what extent is data used for follow-up purposes - weight and height checked for malnutrition.
10. Method of administering corrective work - none attempted.
11. What tests and measurements given - none.
12. Number of boys participating in intramural program -  
Fall - no program.  
Winter - fifty boys in an intramural league. At close of league a team is picked to represent the school in interscholastic competition.





Spring - thirty boys in baseball.

13. List of activities taught for leisure time education - volley ball, baseball and basketball.

14. Program of activities:

Apparatus, tumbling, free exercises, marching, basketball and speed ball.

15. Classes held out-of-doors when possible - no.

16. List of equipment:

Long horse

Five mats

Parallel bar.

Indoor facilities:

Exercise floor, width forty-five feet, length fifty feet and height twelve feet.

No showers.

Lockers inadequate and not convenient.

Outdoor facilities:

Playground badly broken by buildings.





School L

1. Number of boys in school - 260.
2. Length of periods - sixty minutes.
3. Number of periods per week - two.
4. Largest class - sixty-eight. Smallest class - thirty-five. Average class - forty-five.
5. To what extent is program modified to meet individual differences - none.
6. How often is a medical examination given - once a year by a physician.
7. How often is a physical examination given - twice a year by physical director.
8. Records kept - yes.
9. To what extent is data used for follow-up purposes - none.
10. Method of administering corrective work - special class once a week with identical work for all.
11. What tests and measurements given - none.
12. Number of boys participating in intramural program -  
Fall - football - 160.  
Winter - basketball - 220.  
Spring - baseball - 110.
13. List of activities taught for leisure time recreation education - spud, volley ball, and baseball.
14. Program of activities:  
Fall - football fundamentals.  
Winter - tumbling, marching, wand drills, free exercises, formal



calistehnnics and marching.

Spring - track and games of low organization.

15. Classes held out-of-doors when possible - no.

15. List of equipment:

Mats

Wands

Dumb-bells

Basketballs

Volley balls

Indoor baseballs

Horse

Indoor facilities:

Exercise floor, width fifty feet, length seventy-five feet, height twenty-seven feet.

Lockers have adequacy, safety, sanitation and convenience.

Outdoor facilities:

Large playground unbroken by buildings but owing to closeness of another school, activities are curtailed because of interfering with the other school.





School M

1. Number of boys in school - 300.
2. Length of periods - forty-five minutes.
3. Number of periods per week - two.
4. Size of largest class - fifty-five. Smallest class - thirty. Average class - thirty-five.
5. To what extent is program modified to meet individual differences - none.
6. How often is a medical examination given - once a year by school physician.
7. How often is physical examination given - twice a year by physical director, which consists of weight, height, and body posture.
8. Records kept - yes.
9. To what extent is data used for follow-up purposes - school nurse in checking malnutrition cases.
10. Method of administering corrective work - during class activities posture stressed.
11. What tests and measurements given - none.
12. Number of boys participating in intramural program -
  - Fall - football and soccer - 80.
  - Winter - basketball - 90.
  - Spring - track and baseball - 60.
13. List of activities taught for leisure time recreation - seasonable games of soccer, touch football, basketball, baseball and track.





14. Program of activities:

Fall - soccer, football, fundamentals, touch football and playground games.

Winter - wrestling, apparatus exercise, marching, games of low organization, basketball fundamentals, indoor baseball.

15. Classes held out-of-doors when possible - yes.

16. List of equipment:

Mats

Rings

Horse

Climbing ropes

Indoor facilities:

Exercise floor width fifty feet, length seventy feet, height twenty-seven feet.

Showers adequate.

Lockers inadequate in number.

Outdoor facilities:

Large fenced in playground.

1. *Problema de activitate*

2. *Problema de activitate*

3. *Problema de activitate*

4. *Problema de activitate*

5. *Problema de activitate*

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10. *Problema de activitate*

11. *Problema de activitate*

12. *Problema de activitate*

13. *Problema de activitate*

14. *Problema de activitate*

15. *Problema de activitate*

16. *Problema de activitate*



School N

1. Number of boys in school - 82.
2. Length of periods - forty-five minutes.
3. Number of periods per week - two.
4. Size of largest class - forty- Smallest class - thirty-eight. Average class - thirty-nine.
5. To what extent is program modified to meet individual differences - none.
6. How often is medical examination given - once a year by school physician
7. How often is a physical examination given - once a year in conjunction with medical examination.
8. Records kept - yes.
9. To what extent is data used for follow-up purposes - school nurse follows up defects as best she can and suggests exercises and other information.
10. Method of administering corrective work - school nurse.
11. What tests and measurements given - achievement tests.
12. Number of boys participating in intramural program -  
Winter-basketball - 40.
13. List of activities taught for leisure time education - basketball, soccer, and horse shoe pitching.
14. Program of activities:  
Fall - tag football and soccer league.  
Winter - basketball skills, relays games, basketball league, calisthenics, apparatus, tumbling, and stunts.





Spring - achievement tests and class league in soft baseball

15. Classes held out-of-doors when possible - yes.

16. List of equipment:

|          |                |               |
|----------|----------------|---------------|
| Mats     | Climbing ropes | Parallel bar  |
| High bar | Rings          | Chest weights |
|          | Spring board   |               |

Indoor facilities:

Exercise floor - width forty-five feet, length sixty feet, height twenty-eight feet.

Showers adequate

Lockers adequate.

Outdoor facilities:

Small fenced in playground unsuited for play activities.





School 0

1. Number of boys in school - 230.
2. Length of periods - seventy-five minutes.
3. Number of periods per week - one.
4. Size of largest class - fifty-five. Smallest class- thirty-five.  
Average class - forty.
5. To what extent is program modified for individual differences - in Junior High School athletics, boys are divided into groups according to their weight.
6. How often is a medical examination given - once a year by school physician.
7. How often is a physical examination given - twice a year by physical director who checks pupil's posture, weight, height and foot conditions.
8. Records kept - yes
9. To what extent is data used for follow-up purposes - remediable defects are noted on cards and memoranda given to school nurse who follows up the cases and does all that can be done to have those defects removed.
10. Method of administering corrective work - a clinic attempted to care for serious physical defects. The classes were small in number so individual attention could be given each.
11. What tests and measurements given - physical efficiency tests.
12. Number of boys participating in intramural program -

Fall - football - 150





Winter - basketball - 100.

Spring - baseball - 125.

The boys in each sport play on intramural schedule and later on inter-school schedule is played. At the end of each sport season a game is played between an all heavy-weight team of junior high schools and the high school reserves.

13. List of activities taught for leisure time education - basketball, volley ball, soccer, tag football.

14. Program of activities:

Mostly a play activity program with some formal work.

Fall - soccer, football fundamentals, volley ball and playground games.

Winter - health instruction, basketball fundamentals, rope climbing, physical efficiency tests and games of various types.

Spring - track, field fundamentals and baseball fundamentals.

15. Classes held out-of-doors when possible - yes.

16. List of equipment:

Parallel bars

Mats

Climbing ropes

Indoor facilities:

Exercise floor, width forty-five feet, length seventy feet, height twenty-five feet. Adequate lockers and showers.

Outdoor facilities:

Large playground.







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# Date Due

|             |     |             |  |
|-------------|-----|-------------|--|
| SEP 2 1956  | 130 |             |  |
| OCT 28 1953 |     | MAY 13 1959 |  |
| NOV 14 1953 |     |             |  |
| DEC 8 1956  |     |             |  |
| DEC 15 1956 |     |             |  |
| JAN 5 1957  |     |             |  |
| JAN 19 1957 |     |             |  |
| JAN 23 1957 |     |             |  |
| FEB 2 1957  |     |             |  |
| APR 1 1957  |     |             |  |
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